ET-3402-J 7 1/4-INCH CIRCULAR SAW





CAUTION RISK OF INJURY! READ MANUAL BEFORE OPERATING! THIS MANUAL IS AN IMPORTANT PART OF THE CIRCULAR SAW AND SHOULD REMAIN WITH THIS UNIT WHEN YOU SELL OR RENT IT.

Introduction

Congratulations on the purchase of your new Circular Saw! You can be assured your circular saw was constructed and designed with quality and performance in mind. Each component has been rigorously tested to ensure the highest level of acceptance.

This operator's manual was compiled for your benefit. By reading and following the simple safety, installation, operation, maintenance and troubleshooting steps described in this manual, you will receive years of trouble-free operation from your new tool. The contents of this manual are based on the latest product information available at the time of publication. The manufacturer reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

Once the unit has been removed from the box, immediately write in the serial number of your unit in the space provided below.

SERIAL NUMBER

Inspect for signs of obvious or concealed freight damage. If damage does exist, file a claim with the transportation company immediately. Be sure that all damaged parts are replaced and that the mechanical problems are corrected prior to operation of the unit. If you require service, contact your Customer Service.

Mi-T-M[®] Corporation, 8650 Enterprise Drive, Peosta, IA 52068 1-877-JD-KLEEN / (1-877-535-5336) Fax 563-556-1235 Monday - Friday 8:00 a.m. - 5:00 p.m. CST

Please have the following information available for all service calls:

1.	Model Number
2	Serial Number

Serial Number
Date and Place of Purchase

WARNING

WEAR RESPIRATORY PROTECTION

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-base paints,
- Crystalline Silica from bricks, cement and other masonry products, and
- Arsenic and Chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your tool or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

UNDERSTAND SIGNAL WORDS

A "DANGER, WARNING or CAUTION" safety warning will be surrounded by a "SAFETY ALERT BOX." This box is used to designate and emphasize Safety Warnings that must be followed when operating this tool.

Accompanying the Safety Warnings are "signal words" which designate the degree or level of hazard seriousness. The "signal words" used in this manual are as follows:

DANGER: Indicates an imminently hazardous situation which, if not avoided, WILL result in <u>death or</u> <u>serious injury</u>.

WARNING: Indicates a potentially hazardous situation which, if not avoided, COULD result in <u>death or</u> <u>serious injury</u>.

CAUTION: Indicates a potentially hazardous situation which, if not avoided MAY result in <u>minor or</u> <u>moderate injury</u>.

GENERAL SAFETY RULES

WARNING: Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/ or serious personal injury.







DANGER: KEEP HANDS AWAY FROM CUTTING AREA

Keep hands away from blades. Do not reach underneath work while blade is rotating. Do not attempt to remove cut material when blade is moving.

CAUTION: Blades coast after turn off!

AWARNING

KEEP WORK AREA CLEAN AND WELL LIT. Cluttered areas and benches invite injuries.

CONSIDER WORK AREA ENVIRONMENT.

Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Don't use tool in presence of flammable liquids or gases. Power tools produce sparks during operation. They also spark when switching ON/ OFF. Never use power tools in dangerous sites containing lacquer, paint, benzine, thinner, gasoline, gases, adhesive agents, and other materials which are combustible or explosive.

GUARD AGAINST ELECTRIC SHOCK

Prevent body contact with grounded surfaces. For example, pipes, radiators, ranges, refrigerator enclosures.

KEEP CHILDREN AWAY

Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.

STORE IDLE TOOLS

When not in use, tools should be stored in dry, and high or locked location - out of reach of children.

DRESS PROPERLY

Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors.

USE SAFETY GLASSES

Also use face or dust mask if cutting operation is dusty. All persons in the area where power tools re being operated should also wear safety eye protectors and face or dust masks.

SECURE WORK

Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.





DON'T OVERREACH

Keep proper footing and balance at all times.

MAINTAIN TOOLS WITH CARE

Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and replace if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.

DISCONNECT TOOLS

When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

AVOID UNINTENTIONAL STARTING

Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugged in.

SECURELY MOUNT ACCESSORIES AND BLADES TO THE TOOL MAIN BODY

Extra care must be taken when using tools on elevated location (such as a roof ladder, scaffold, or the like) to prevent injury to someone on a lower level in the event the tool and/or accessory should drop.

NEVER TOUCH THE MOVING PARTS

Never touch the moving parts such as blades, bits, cutters and others.

DON'T FORCE TOOL

It will do the job better and safer at the rate from which it was intended.

USE RIGHT TOOL

Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended - for example - don't use circular saw for cutting tree limbs or logs.

DON'T ABUSE CORD

Never carry tool by cord or yank it to disconnect from receptacles. Keep cord from heat, oil and sharp edges.

REMOVE ADJUSTING KEYS AND WRENCHES

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.



OUTDOOR USE EXTENSION CORDS

When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

STAY ALERT

Watch what you are doing. Use common sense. Do not operate tool when you are tired.

CHECK DAMAGED PARTS

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by a John Deere Dealer unless otherwise indicated elsewhere in this instruction manual. Have defective switched replaced by a John Deere Dealer. Do not use tool if switch does not turn it on and off.

AVOID USING A POWER TOOL FOR APPLICATIONS OTHER THAN THOSE SPECIFIED

Never use a power tool for applications other than those specified in the instruction manual.

ENSURE SAFE OPERATION THROUGH CORRECT HANDLING

Secure safe operation through correct handling by observing the instructions described herein. Do not employ accessories other than those specified herein; otherwise, a hazardous condition may be created. Never allow a power tool to be used by persons not familiar with correct handling (such as children) or by those who cannot handle the tool correctly.

CONFIRM THAT NO ITEMS SUCH AS AN ELECTRIC CABLE OR CONDUIT ARE BURIED INSIDE

In places where live wiring may be hidden behind a wall, floor, ceiling, etc. do not hold or contact any metal parts of the tool. In such cases, metal parts could become electrically live and present a serious shock hazard.

KEEP THE RIGHT PARTS IN THE RIGHT POSITION

Do not remove covers and screws which have been factory-mounted. They perform important respective roles. Keep them in the right positions.

SHOULD THE PLASTIC HOUSING OR HANDLE OF A POWER TOOL BE CRACKED OR DEFORMED, DO NOT USE IT

Since cracked or deformed parts may lead to an operator receiving an electric shock, do not use such a power tool. Immediately have it repaired.



ALWAYS KEEP THE MOTOR AIR VENT FULLY OPENED

A constantly open motor air vent is necessary to allow air to come in and out for cooling the motor. Do not allow it to become clogged up, even if dust is blown through it.

OPERATE POWER TOOLS AT THE RATED VOLTAGE

Operate power tools at voltages specified on the nameplates.

STOP OPERATION IMMEDIATELY IF ANY ABNORMALITY IS DETECTED

Should a power tool be detected as out of order or should other abnormalities be observed during operation, stop using the tool immediately.

NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.

Don't leave tool until it comes to a complete stop.

CAREFULLY HANDLE POWER TOOLS

Should a power tool be dropped or struck against hard materials inadvertently, it may be deformed, cracked, or damaged.

DO NOT WIPE PLASTIC PARTS WITH SOLVENT

Solvents such as gasoline, thinner, benzine, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water.

WHEN REPLACING A COMPONENT PART, ADOPT THE SAME TYPE

When replacing a component part with a new one, adopt the same type of new part. Also, never attempt to repair a power tool yourself.

KEEP GUARDS IN PLACE AND IN WORKING ORDER

Never wedge or tie lower guard open. Check operation of lower guard before each use. Do not use if lower guard does not close briskly over saw blade. **CAUTION:** If saw is dropped, lower guard may be bent, restricting full return.

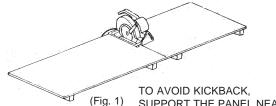
KEEP BLADES CLEAN AND SHARP

Sharp blades minimizes stalling and kickback.



SUPPORT LARGE PANELS

Large panels must be supported as shown in Fig. 1 to minimize the risk of blade pinching and kickback. When cutting operation requires the resting of saw on the work piece, the saw shall be rested on the larger portion and the smaller piece cut off. A TYPICAL ILLUSTRATION OF SUPPORT LARGE PANELS



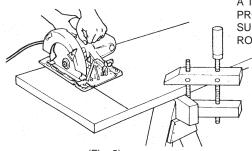
USE RIP FENCE

g. 1) SUPPORT THE PANEL NEAR THE CUT

Always use a fence or straight edge guide when ripping.



IT IS IMPORTANT TO SUPPORT THE WORK PROPERLY AND TO HOLD THE SAW FIRMLY TO PREVENT LOSS OF CONTROL WHICH COULD CAUSE PERSONAL INJURY. FIG. 2 ILLUS TRATES TYPICAL HAND SUPPORT OF THE SAW. WHEN OPERATING THE SAW, KEEP THE CORD AWAY FROM THE CUTTING AREA AND POSITION IT SO THAT IT WILL NOT BE CAUGHT ON THE WORK PIECE DURING THE CUTTING OPERATION.



A TYPICAL ILLUSTRATION OF PROPER HAND SUPPORT, WORK SUPPORT, AND SUPPLY CORD ROUTING.

(Fig. 2)

GUARD AGAINST KICKBACK

Kickback occurs when the saw stalls rapidly and is driven back towards the operator. Release switch immediately if blade binds or saw stalls.

Keep blades sharp.

Support large panels as shown in Fig. 1.

Use fence or straight edge guide when ripping.

Don't force tool.

Stay alert exercise control.

Don't remove saw from work during a cut while the blade is moving.

DO NOT RUN THE SAW WHILE CARRYING IT AT YOUR SIDE



LOWER GUARDS

Raise lower guard with the retracting handle (Lever).

ADJUSTMENTS

Before cutting be sure depth and bevel adjustments are tight.

USE ONLY CORRECT BLADES IN MOUNTING

Do not use blades with incorrect size holes. Never use defective or incorrect blade washers or bolts.

AVOID CUTTING NAILS

Inspect for and remove all nails from lumber before cutting.

POLARIZED PLUGS

To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other).

This plug will fit in a polarized outlet only one way.

If the plug does not fit fully in the outlet, reverse the plug.

If it still does not fit, contact a qualified electrician to install the proper outlet.

Do not change the plug any way.



EXTENSION CORD

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

			Tal	ole 1		
MINIMUM GAGE FOR CORD SETS						
		Total Le	ngth of C	ode in Feet (Mete	er)	
		0-25	26-50	51-100	101-150	
		(0-7.6)	(7.9-15	5.2) (15.5-30.05)	(30.8-45.7)	
Ampere Rating		AWG S	ize of Co	rd		
More	Not Mo	re				
Than	Than					
0	6	18	16	16	14	
6	10	18	16	14	12	
10	12	16	16	14	12	
12	16	14	12	Not recomm	nended	

WARNING: AVOID ELECTRICAL SHOCK HAZARD. NEVER USE THIS TOOL WITH A DAMAGED OR FRAYED ELECTRICAL CORD OR EXTENSION CORD. INSPECT ALL ELECTRICAL CORDS REGULARLY. NEVER USE IN OR NEAR WATER OR IN ANY ENVIRONMENT WHERE ELECTRIC SHOCK IS POSSIBLE.

DOUBLE INSULATION SYSTEM ENHANCES SAFE OPERATION



DOUBLE INSULATION

To enhance safe operation of this electric power tool, JOHN DEERE has adopted a double insulation system. The term "double insulation" used here denotes an insulation systems with two insulations physically separated and arranged between the electrically conductive material connected to the power supply and outer frame subject to contact by the operator.

Thus, the power tool is termed double insulated and both the mark and "

While no external grounding is required with this system, normal safety precautions as outlined in this manual must still be followed.

To maintain the effectiveness of the double insulation system, follow the precautions described below:

- Always contact your John Deere Dealer when assembling, disassembling or replacing parts other than accessories or carbon brushes. Improper assembly and/or replacement with wrong parts may result in eliminating the double insulation-feature.
- 2. Clean the exterior of the tool with a soft cloth moistened with soapy water, and dry thoroughly. Choleric solvent, gasoline, and thinner will cause plastic compo nents to dissolve.

SAVE THESE INSTRUCTIONS AND MAKE THEM AVAILABLE TO OTHER USERS AND OWNERS OF THIS TOOL!

Functional Description

MODEL:

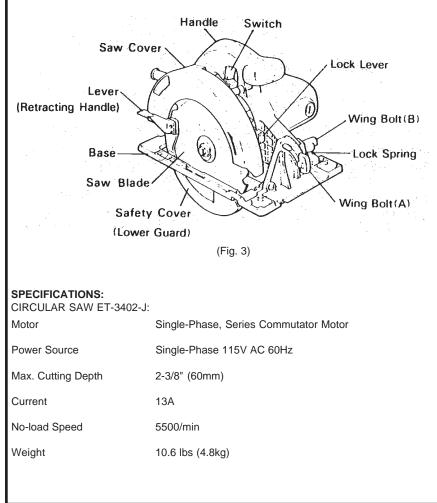
ET-3402-J CIRCULAR SAW

NOTE: The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the power tool.

NEVER operate, or attempt any maintenance on the tool unless you have first read and understood all safety instructions contained in this manual.

Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own power tool

NAME OF PARTS:



APPLICATIONS:

Cutting various types of wood.

PRE-OPERATION:

Before using the Electric Power Tool, complete the following preparations:

- 1 Power source: Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.
- 2. Power switch:

Ensure that the power switch is in the "OFF" position. If the plug is connected to a power receptacle while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

- 3. Extension cord: When the work area is removed from the power source. use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.
- 4. Prepare a wooden work bench (Fig. 4): Since the saw blade will extend beyond the lower surface of the lumber, place the lumber on a work bench when cutting. If a square block is utilized as a work bench, select level ground to ensure it is properly stabilized. An unstable work bench will result in hazardous operation.

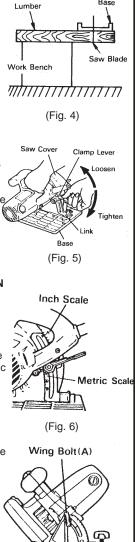
CAUTION:

TO AVOID POSSIBLE ACCIDENT. ALWAYS ENSURE THAT THE PORTION OF LUMBER REMAINING AFTER CUTTING IS SECURELY ANCHORED OR HELD IN POSITION.

5. Confirm the power receptacle: If the power receptacle only loosely accepts the plug, the receptacle must be repaired. Contact the nearest electric store for repair service. If such a faulty receptacle is used, it may cause overheating, resulting in a serious hazard.

ADJUSTING THE SAW PRIOR TO USE:

- Adjusting the cutting depth (Fig. 5, Fig. 6): 1. To adjust cutting depth, loosen the clamp lever and, while holding the base with one hand, move the main unit up and down to obtain the prescribed cutting depth. Inch scale on the saw cover and metric scale on the link provide a general guide to cutting depth. After adjusting to the prescribed cutting depth, tighten the clamp lever securely.
- 2. Adjusting the angle on inclination: As shown in Fig. 7 by loosening the wing-bolt on the inclined gauge, the saw blade may be inclined to maximum angle of 45 in relation to the base. Always insure that the wing-bolt is thoroughly tightened after making the desired adjustment.

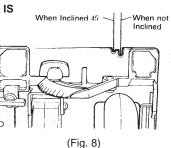


(Fig. 7)

Base

OPERATION: CUTTING PROCEDURES:

CAUTION: RECHECK THAT THE SAW BLADE IS SECURELY CLAMPED. CONFIRM THAT THE CLAMP LEVER FOR ADJUSTING THE SLOT DEPTH, THE WING-BOLT FOR ADJUSTING THE ANGLE OF INCLINATION. GRIP THE SAW AS SHOWN IN FIG. 2 AND BE SURE THE CORD IS FREE TO MOVE THROUGH THE ENTIRE CUT WITHOUT JAMMING OR GETTING IN THE PATH OF THE SAW BLADE.



- Place the saw body (base) on the lumber, and as in Fig. 8 align the intended line of cut with the saw blade, using the notch at the front of the base. This relationship of base to lumber should remain unchanged regardless of the inclination of the base.
- The switch should be turned to the ON position before the saw blade comes into contact with the lumber. The switch is turned ON when the trigger is pulled by one's finger, and is turned OFF when the trigger is released.
- 3. Moving the saw straight at a constant speed will produce optimum cutting.



BEFORE STARTING TO SAW, ENSURE THAT THE SAW BLADE HAS REACHED FULL SPEED REVOLUTION. SHOULD THE SAW BLADE STOP OR MAKE AN ABNORMAL NOISE DURING OPERATION, TURN OFF THE SWITCH IMMEDIATELY.

DURING OPERATION, DO NOT COVER THE SLOTS IN THE TAIL TO PREVENT MOTOR BURN.

ALWAYS TAKE CARE IN PREVENTING THE POWER CORD FROM COMING NEAR THE REVOLVING SAW BLADE.

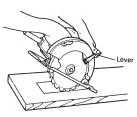
WHEN FINISHED WITH A JOB, PULL OUT THE PLUG FROM THE POWER RECEPTACLE.

OPERATION (CONTINUED):

POCKET CUTTING:

CAUTIONS: RELEASE TRIGGER AFTER CUTTING WORK AND DISCON-NECT PLUG FROM POWER SUPPLY BEFORE ANY ADJUST-MENT. NEVER TIE OR WEDGE THE SAFETY COVER IN A RAISED POSITION.

- 1. Mark the desired cutting area clearly with lines all side. (See Fig. 9)
- 2. Set depth adjustment according to material to be cut.
- 3. Push the safety cover lever all the way back so the blade is exposed as shown in Fig. 9.
- 4. Tilt saw forward and align the notch (Fig. 8) with the premarked guide line.
- Release the safety cover lever. When the safety cover contacts the workplace surface, it will be in proper position to open freely when cutting is commenced.
- 6. Holding the saw in position, with the blade not contacting the workplace surface, pull the trigger.
- After the saw has reached full speed, gradually lower rear end of the saw until its base rests on the work surface.





- 8. Advance saw along the cutting line up to the corner.
- Release trigger and allow blade to stop completely before withdrawing the blade from the workplace. Never under any circumstances pull the saw backwards while the blade is in motion, as kickback may result.
- 10. Use a jig saw or hand saw to cut the corners out clean.
- 11. When starting each new cut, repeat as above.

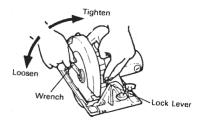
OPERATION (CONTINUED):

MOUNTING AND DISMOUNTING THE SAW BLADE:

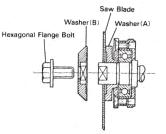
CAUTION:

I: TO AVOID SERIOUS ACCIDENT, ENSURE THE SWITCH IS IN THE OFF POSITION, AND THE POWER SOURCE IS DISCON-NECTED.

- Dismounting the saw blade (Fig. 10): To replace the saw blade, push the lock lever, then loosen the hexagonal bolt with the wrench. The blade comes off easily.
- 2. Mounting the saw blade:
 - a. Thoroughly remove any sawdust which has accumulated on the spindle, bolt and washers.
 - For mounting saw blade, the concave sides of both washers (A) and (B) must be fitted to the saw blade sides. Mount the saw blade on the spindle, and finally affix washer (B). (See Fig. 11)
 - c. To assure proper rotation direction of the saw blade, the arrow direction on the saw blade must coincide with the arrow direction on the saw cover.
 - d. Using the fingers tighten the hexagonal bolt retaining the saw blade as much as possible. Then depress the lock lever, lock the spindle, and thoroughly tighten the bolt.
 - e. Confirm that the lock lever is in the original position.



(Fig. 10)



(Fig. 11)

Maintenance and Inspection

MAINTENANCE AND INSPECTION:

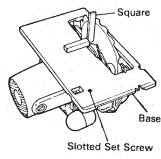


CAUTION: BE SURE TO SWITCH POWER OFF AND DISCONNECT THE PLUG DURING MAINTENANCE AND INSPECTION.

- 1. Inspecting the saw blade: Since use of a dull saw blade will degrade efficiency and cause possible motor malfunction, sharpen or replace the saw blade as soon as abrasion is noted.
- Inspecting the mounting screws: Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.
- 3. Inspecting the carbon brushes: The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush could result in motor trouble, replace the carbon brush with a new one which has the same carbon brush No. shown in figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.
- 4. Replacing a carbon brush: Disassemble the brush cap with a minus head screwdriver. The carbon brush can then be easily removed.
- 5. Adjusting the base and saw blade to maintain perpendicularity: The angle between the base and the saw blade has been adjusted to 90, however should this perpendicularity be lost for some reason, adjust in the following manner.
 - a. Turn the base face up (Fig. 13) and loosen the wing bolt (A) (Fig. 7).
 - b. Apply a square to the base and the saw blade and, turning the slotted set screw with a minus screwdriver, shift the position of the base to produce the desired right angle.

Wear Limit 38 (6mm) (0.24 No.of Carbon Brush 0.67 (17mm)

(Fig. 12)



(Fig. 13)

Maintenance and Inspection

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations should ONLY be performed by a John Deere Dealer.

REPLACEMENT PARTS

When servicing use only identical replacement parts.

NOTE: Due to JOHN DEERE's continuing program of research and development, the specifications herein are subject to change without prior notice.

STANDARD ACCESSORIES:

CAUTION: RECOMMENDED ACCESSORIES FOR THE ELECTRIC POWER TOOL ARE MENTIONED IN THIS MANUAL. THE USE OF ANY OTHER ATTACHMENT OR ACCESSORY IS HAZARDOUS.

1. Saw Blade

External Diam.	Hole Diam.	
7 1/4" (185mm)	5/8" (15.9mm)	

1

1

1

1

- 2. Wrench
- 3. Wiring Bolt (B)
- 4. Lock Spring





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